



ELECTRONIC TUBE REFERENCE

D12120GH115

Specialized - Cathode Ray electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION
CONSTRUCTION
CATHODERAY

Philips instrument cathode-ray tube for oscilloscope or precision display service, using electrostatic beam control and manufacturer-specified focusing, acceleration, capacitance, screen, and deflection characteristics.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	—
NOMINAL HEATER	— / —	PARALLEL HEATER	— / —
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION 1 Cathode Ray

No fixed ratings recorded.

Published electrical ratings and operating data captured in promoted fields where directly applicable and additional parameter rows.

Philips cathode-ray tube intended for oscilloscope or instrument-display service. The datasheet specifies screen, heating, electrostatic deflection, accelerator/focusing voltages, capacitances, operating characteristics, and limiting values as applicable.

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1999 Philips 0-D

Published test conditions and operating points. Values on this page are preserved as reported by this source.

1999 PHILIPS 0-D

Section 1 · Cathode Ray

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Published specification	2 cm	Published datasheet specification
Final accelerator voltage V_g	10 kV	Published datasheet specification
Minimum useful scan area	0 mm	Published datasheet specification
horizontal M_y	5.6 V	Published datasheet specification
vertical M_y	1 V	Published datasheet specification
Useful screen area	80 mm	Published datasheet specification
Useful scan area	80 mm	Published datasheet specification
Heater voltage V_i	3 V	Published datasheet specification
Heater current I_t	1 A	Published datasheet specification
Overall length {socket included) <	356 mm	Published datasheet specification
Published specification	1	Published datasheet specification
Published specification	4	Published datasheet specification
Published specification	9	Published datasheet specification
Published specification	2	Published datasheet specification
Control grid to all other elements C_q	5 pF	Published datasheet specification
Cathode to all other elements C_k	5 pF	Published datasheet specification
x-trace with the mechanical x-axis of the screen. The coil has	0	Published datasheet specification
earthing the outer conductive coating. Minimum cable length is	20 mm	Published datasheet specification

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Published specification	10 mm	Published datasheet specification
Published specification	50 V	Published datasheet specification
subdivision	6 mm	Published datasheet specification
Line width	0.15 mm	Published datasheet specification
dot diameter	0.32 mm	Published datasheet specification
Geometry control electrode voltage V_g	1500	Published datasheet specification
Background illumination control voltage A_{vga}	15 V	Published datasheet specification
Deflection plate shield voltage V_g	1500 V	Published datasheet specification
Astigmatism control electrode voltage A_V	2	Published datasheet specification
Line width l.w. typ	35 mm	Published datasheet specification
Grid drive for	0 uA	Published datasheet specification
Final accelerator voltage V_g	11 kV	Published datasheet specification
Geometry control electrode voltage V_g	2200 V	Published datasheet specification
shield voltage V_g	2200 V	Published datasheet specification
Deflection plate shield voltage V_g	2200 V	Published datasheet specification
Focusing electrode voltage V_g	2200 V	Published datasheet specification
$R \dots ; v \text{ max}$	200 V	Published datasheet specification
First accelerator and astigmatism voltage	2.94	Published datasheet specification
$V_v \text{ max}$	0 V	Published datasheet specification
electrode and any deflection plate V_g	500 V	Published datasheet specification
$V_{aa/y} \text{ max}$	0 V	Published datasheet specification
Grid drive, averaged over	20 V	Published datasheet specification
distortion, and a slight increase of background light. By the use of the two voltages V_g	7	Published datasheet specification

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
conditions, adjusted for optimum spot size, at a beam current of	0	Published datasheet specification
Published specification	80 mm	Published datasheet specification
Published specification	75	Published datasheet specification
at a deflection of	5	Published datasheet specification

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
1. The tube is designed for optimum performance when operating at a ratio $V_{gg(g)}/V_{gz,g4}$	6.7	Published datasheet specification

TUBE TINKER

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